

Remarks

Reconsideration of the claims is requested in view of the amendments and remarks.

Allowable Subject Matter.

Applicant notes that Examiner has allowed claim 20.

Disposition of the Claims.

Claims 1 to 37 remain in the application.

Claims 2, 3, 4, 8, 9, 11, and 12 are amended. Claims 21 to 37 are newly added. Claims 2, 3, 5-7, 11, 13 and 18 are objected to. Claims 1, 4, 8-10, 12, 14-17 and 19 stand rejected.

Informal Drawings.

Applicant acknowledges Examiner's objection to the informal drawings. Upon allowance of the claims, Applicant will submit formal drawings.

Applicant's Newly Amended Claims are not Indefinite.

Claims 4, 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is Examiner's position that:

Claim 4 is unclear. Claims 4 and 12 were been amended to include the word "oxide" for clarification. Full support for the amendment is found on page 3 of the specification, the penultimate sentence.

Claim 8 provides insufficient antecedent basis for the limitation "the sandpaper". Claim 8 has been amended to be dependent on claim 2, which provides antecedent basis for "the sandpaper".

Claim 9 provides insufficient antecedent basis for the limitation "the sandpaper". Claim 9 has been amended to be dependent on claim 2, which provides antecedent basis for "the sandpaper."

Claim 12 provides insufficient antecedent basis for the limitation “the sandpaper”. Claim 12 has been amended to be dependent on claim 11, which provides antecedent basis for “the sandpaper.”

Claims 2, 3, 4, 11 and 12 were amended to replace “sand paper” with –sandpaper--, to provide a consistent spelling with the specification.

Applicant submits that no new matter is entered with the amendments. In view of the above amendments to the claims, Applicant submits that the 112 rejection of the claims is overcome and respectfully requests that it be withdrawn.

Applicant’s Newly Added Claims are not Dependent on a Rejected Base Claim.

Claims 2, 3, 5-7, 11, 13 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant has submitted new claims 21, 22, 24-26, 29 31 and 36, such that the new claims correspond to the objected claims 2, 3, 5-7, 11, 13 and 18, and are rewritten to include all the limitations of the base claim and any intervening claims.

Claim 4, 8, 9 and 12 are indicated allowable if rewritten to overcome the rejection under 35 U.S.C. 112, second paragraph, and to include all of the limitations of the base claim and any intervening claims.

Applicant has submitted new claims 23, 27, 28 and 30, such that the new claims correspond to claims 4, 8, 9 and 12, and include all of the limitations of the base claim and any intervening claims.

In view of the above amendments and newly added claims, Applicant submits that the objection to the claims is overcome, and respectfully requests that it be withdrawn.

Applicant’s Original Claims are not Anticipated by the Milligan et al. Patent.

Claims 1, 20, 14 and 15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,275,156 to Milligan et al. It is Examiner’s position that Milligan et al. disclose a reusable heat pack using a supercooled solution and a trigger means comprising spherical object (particles) that may be glass or ceramic in a receptacle (support). The particles are interpreted as

being partially dry due to contact with one another and the support. Applicant respectfully traverses the rejection.

The present invention is broadly claimed in claim 1 as follows:

Claim 1. A trigger to initiate crystallization of a supercooled aqueous salt solution wherein the trigger comprises dry or partially dry particles adhering to a support, wherein, when the dry or partially dry particles are released into the salt solution by manipulation of the support, crystallization is initiated.

Applicant respectfully points out to Examiner that the claim is directed to “dry or partially dry particles *adhering* to a support”(emphasis added). The device disclosed by Milligan et al. has spherical objects in a receptacle. The Figures in the Milligan et al. patent disclose a sack-like container with one end opened into the supercooled liquid. Contained within the sack are spheres that move freely about in the receptacle and the supercooled liquid. There is nothing in the specification or drawings of Milligan et al. that discloses that the spheres *adhere* to the receptacle.

Further, Examiner interpreted Milligan et al. as having particles that are partially dry “due to their...contact with one another and the support.” Applicant respectfully points out to Examiner that there is no teaching or suggestion that the spherical objects be partially dry. To the contrary, the spherical objects are immersed in liquid. Applicant submits that one skilled in the art of heat packs would assume that the objects are totally wet, even though such teaching is not specifically disclosed. To assume otherwise would not be logical. One skilled in the art of heat packs could not possibly read Milligan et al. and derive Applicant’s claimed heat pack and trigger which requires for functionality that the particle adhering to the support be *dry or partially dry*. Examiner’s interpretation to the contrary, Milligan et al. simply do not disclose or suggest such teachings.

Finally, the trigger disclosed by Milligan et al. is a reusable trigger. The purpose stated by Milligan et al. was to provide a reusable trigger (see Col. 2, lines 10 and 11). The present trigger is not reusable. One skilled in the art of reusable triggers would certainly not be led by a reading of Milligan et al. to construct the present device, which is not reusable, thereby defeating its stated purpose of reusability.

For claim to be anticipated under 102(b), each and every claim element must be disclosed. Applicants submit that claims

1, 10, 14 and 15 are not anticipated by Milligan et al. in that the spheres do not adhere to the receptacle and the spheres are not dry or partially dry. In view of the above arguments, Applicant respectfully requests that the rejection be withdrawn and that the claims be allowed.

Applicant's Claims are Patentable Over the Milligan et al. Patent.

Claims 16 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5, 275,156 to Milligan et al. Applicant respectfully traverses the rejection.

As stated above, Milligan et al. fails to disclose or suggest a trigger or a heat pack having a trigger wherein the dry or partially dry particles adhere to a support.

In view of the above arguments, Applicant submits that the 103 rejection of the claims is overcome, and respectfully request that it be withdrawn.

Applicant's Claims are Patentable Over the Milligan et al. Patent in View of the Walters Patent.

Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Milligan et al. in view of U.S. Patent 5,305,733 to Walters. It is Examiner's position that Walters discloses a heat pack with a fastener to hold the pack in place. Applicant respectfully traverses the rejection.

A reading of Milligan et al. in view of Walters fails to make up the deficiencies of Milligan et al. There is nothing to suggest in either patent or in the combination of patents the claimed trigger having dry or partially dry particles adhering to a support.

In view of the above arguments, Applicant submits that the 103(a) rejection of claim 19 is overcome, and respectfully requests that it be withdrawn.

Conclusion

In view of the above arguments and amendments, Applicant submits that the claims are now in order for allowance, and respectfully request such an action.

If Examiner has any comments or suggestions which would place the application in better condition for allowance, he is respectfully requested to call the undersigned attorney.

Respectfully submitted,

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Linda L. Lewis
Linda L. Lewis, Reg. No. 31,212
Attorney for Applicant
CUSTOMER NUMBER: 22807
Greensfelder, Hemker & Gale, PC
10 S. Broadway, Suite 2000
St. Louis, Missouri 63102
314-241-9090 Telephone
314-345-4704 Facsimile